Name(s) of Risk Team Members: P. Cirnigliaro, A. Etkin, R. Karol, E. Lessard, J. Maraviglia, D. Passarello, A. Piper, R. Savage, J. Scott, M. Van Essendelft	Point Value → Parameter ↓	1	2	3	4	5
Area/Facility Description Title: Collider-Accelerator Department Area/Facility # (if applicable): Facility-Wide FRA 4	Occupancy or Use	≤once/year	≤once/month	≤once/week	≤once/shift	>once/shift
Area/Facility Description: Facility-Wide ODH	Severity	First Aid Only	Medical Treatment	Lost Time	Partial Disability	Death or Permanent Disability
Approved by: *E. Lessard* Date: 7/8/04 Rev.#: 1	Likelihood	Impossible	Unlikely	Possible	Probable	Multiple

Reason for Revision (if applicable): FRA number added.	Comments:

			Before Additional Controls					After Additional Controls				
Physical Item or Activity	Hazard(s)	Control(s)	**Occupancy A**	**Severity B**	**Likelihood C**	**Risk* AxBxC**	Control(s) Added to Reduce Risk	**Occupancy A**	**Severity B**	**Likelihood C**	**Risk* AxBxC**	% Risk Reduction
Cryogenic fluids and systems	Oxygen deficiency	ODH analyses, ODH controls, training, interlocked emergency exhaust fans, PPE, remote/local audible/visible alarms, emergency response, EMTs, work planning, POMs, medical clearance, escape pack, MSDS, LOTO, postings, Cryo-system designs to consensus codes, inspections, relief valve testing	5	5	2	50						
Gasses	Oxygen deficiency, toxic/flammable gas	ODH analyses, ODH controls, training, interlocked emergency exhaust fans, remote/local audible/visible alarms, emergency response, EMTs, work planning, POMs, medical clearance, escape pack, MSDS, LOTO, postings, Cryo-system designs to consensus codes, flammable gas alarms, cylinder storage controls, cylinder labels, gas volume limits, inspections, cylinder hydrostatic testing	4	5	2	40						
Fire extinguishing agents	Oxygen deficiency	Posting, emergency response, EMTs, LOTO, training, L18A CO2 bypass, use of Halon and Inergen	3	5	2	30						
Confined spaces	Oxygen deficiency, toxic/flammable gas	Training, atmospheric testing before entry and periodically, entry procedures, Permits, work planning, LOTO, respirators, forced ventilation, personnel rescue equipment, emergency planning, EMTs	2	5	2	20						
Further Description of Controls Added to Reduce Risk:												

*Risk:	0 to 20	21 to 40	41-60	61 to 80	81 or greater
	Negligible	Acceptable	Moderate	Substantial	Intolerable